

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) An image pick-up apparatus for picking up an image of an object, the ~~image pick-up~~ pick-up apparatus comprising:

an image pick-up-means unit having a light receiving surface configured to for
~~receiving~~ receive light from the object to carry out photo-electric conversion, and adapted to output a pixel value obtained as the result of the photo-electric conversion;

an evaluator ~~evaluating-means for~~ configured to-evaluating evaluate the pixel value;-and

a controller ~~control-means for~~ configured to controlling control, in pixel units, exposure time with respect to the light receiving surface on the basis of the ~~evaluation-result~~ by the ~~evaluating-means~~ evaluator;

a storage unit configured to store plural pixel values output from the image pick-up unit and the exposure times of pixels corresponding to the plural pixel values; and

a correcting unit configured to correct the plural pixel values stored in the storage unit based on the exposure times stored in the storage unit.

2. (Currently Amended) The image pick-up apparatus as set forth in claim 1, wherein the evaluator ~~evaluating-means~~ evaluates whether or not the pixel value is a value within a predetermined range; and

wherein when the pixel value is not a value within the predetermined range, the ~~control means~~ controller controls the exposure time with respect to the pixel of the light receiving surface corresponding to that pixel value so that the pixel value is caused to be ~~value~~ within the predetermined range.

3. (Currently Amended) The image pick-up apparatus as set forth in claim 2, wherein the ~~control means~~ controller is operative so that when the pixel value is a predetermined value or more, ~~it~~ the controller shortens the exposure time with respect to the pixel of the light receiving surface corresponding to that pixel value.

4. (Currently Amended) The image pick-up apparatus as set forth in claim 2, wherein the ~~control means~~ controller is operative so that when the pixel value is less than a predetermined value, ~~it~~ the controller elongates the exposure time with respect to the pixel of the light receiving surface corresponding to that pixel value.

5-8. (Canceled)

9. (Currently Amended) The image pick-up apparatus as set forth in ~~claim 8~~ claim 1, which further comprises ~~memory means for storing plural pixel values that the image pick-up means outputs and exposure times of respective pixels corresponding to these plural pixel values.~~

wherein the ~~correcting means~~ unit is operative so that when the longest time of the plural exposure times stored in the ~~memory means~~ storage unit is assumed to be $1/S_{\text{BASE}}$ and the

exposure time of the pixel value stored in the ~~memory means~~ storage unit is assumed to be $1/S$, ~~it~~
the correcting unit multiplies the pixel value stored in the ~~memory means~~ storage unit by S/S_{BASE}
to thereby correct the pixel value.

10. (Currently Amended) The image pick-up apparatus as set forth in ~~claim 8~~
claim 1, which further comprises a display control section for displaying ~~picture image~~ on a
display section ~~for displaying a picture image~~ in accordance with pixel-value values corrected at
the ~~correcting-means~~ unit.

11-13. (Canceled)

14. (Currently Amended) An image pick-up method of picking up an image
of an object, the image pick-up method comprising:

an evaluation step ~~of~~ for evaluating a pixel value acquired from an image pick-up
section having a light receiving surface for receiving light from the object to carry out photo-
electric conversion and adapted to output the pixel value obtained as the result of the photo-
electric conversion; ~~and~~

a control step ~~of~~ for controlling, in pixel units, exposure time with respect to the
light receiving surface on the basis of the evaluation result by the evaluation step;

a storage step for storing plural pixel values output from the image pick-up
section and the exposure times of pixels corresponding to the plural pixel values; and

a correcting step for correcting the stored plural pixel values based on the stored exposure times.

15. (Currently Amended) A program ~~recorded on~~ embodied in a computer-readable ~~media, that when executed causes the medium to control a~~ computer to perform image pick-up processing for picking up an image of an object, the program including:

an evaluation step ~~of~~ for evaluating a pixel value acquired from an image pick-up section having a light receiving surface for receiving light from the object to carry out photo-electric conversion and adapted to output the pixel value obtained as the result of the photo-electric conversion; ~~and~~

a control step ~~of~~ for controlling, in pixel units, exposure time with respect to the light receiving surface on the basis of the evaluation result by the evaluation step;

a storage step for storing plural pixel values output from the image pick-up section and the exposure times of pixels corresponding to the plural pixel values; and

a correcting step for correcting the stored plural pixel values based on the stored exposure times.

16. (Currently Amended) A ~~program recording~~ computer-readable medium ~~adapted so that storing a~~ program for allowing a computer to carry out image pick-up processing which picks up an image of an object ~~is recorded, wherein there is recorded~~ said program ~~comprising~~ causing said computer to perform:

an evaluation step ~~of~~ for evaluating a pixel value acquired from an image pick-up section having a light receiving surface for receiving light from the object and adapted to output pixel value obtained as the result of the photo-electric conversion; ~~and~~

a control step ~~of~~ for controlling, in pixel units, exposure time with respect to the light receiving surface on the basis of the evaluation result by the evaluation step;

a storage step for storing plural pixel values output from the image pick-up section and the exposure times of pixels corresponding to the plural pixel values; and

a correcting step for correcting the stored plural pixel values based on the stored exposure times.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) An image pick-up control apparatus for controlling an image pick-up section having a light receiving surface for receiving light from an object and adapted to output pixel ~~value~~ values obtained as the result of the photo-electric conversion, the image pick-up control apparatus comprising:

an evaluating section for evaluating the pixel value; ~~and~~

a controller ~~control means~~ for outputting, to the image pick-up section, a control signal for controlling, in a predetermined surface unit, an exposure time with respect to the light receiving surface on the basis of evaluation result by the evaluating section;

a storage unit configured to store plural pixel values output from the image pick-
up section and the exposure times of pixels corresponding to the plural pixel values; and
a correcting unit configured to correct the plural pixel values stored in the storage
unit based on the exposure times stored in the storage unit.

20-38. (Canceled)